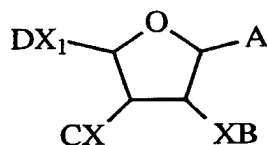
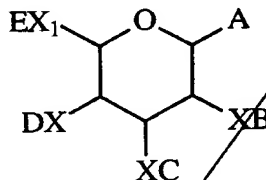


CLAIMS

1. A universal monosaccharide building block of General Formula I or General Formula II



I



II

in which

A is a leaving group;

X is hydrogen, O, N or N₃;

X₁ is hydrogen, -CH₂O-, -CH₂NH-, -CH₃, -CH₂N₃ or -COO-; and

B, C, D and E are protecting groups which can be cleaved orthogonally,

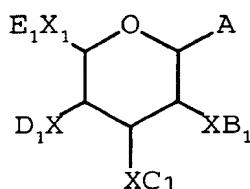
and in which

B, C, D and E are absent when X is hydrogen or N₃, and E is absent when X₁ is hydrogen, CH₃ or N₃.

2. A monosaccharide building block according to claim 1, in which A is selected from the group consisting of -SR; where R is alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, halogen; trichloroacetimidoyl-; sulphoxide; and -O-alkenyl.

3. A monosaccharide building block according to claim 1 or claim 2, which is a compound of General Formula III

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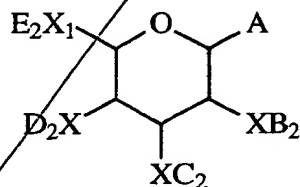


III

in which

B₁, C₁, D₁ and E₁ are orthogonal carbohydrate
 5 protecting groups selected from protecting group sets 1, 2,
 6 and 8 as herein defined.

4. A monosaccharide building block according to
 claim 1 or claim 2, which is a compound of General Formula
 10 IV



IV

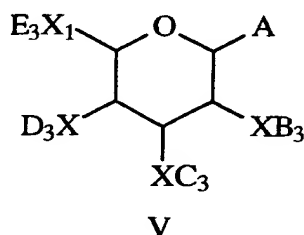
15 in which

B₂, C₂, D₂ and E₂ are selected from the members of
 protecting group set 1, and in themselves constitute an
 orthogonal set.

20 5. A monosaccharide building block according to
 claim 4, in which the members of protecting group set 1 are
 levanoyl, chloroacetate, *p*-methoxybenzyloxycarbonyl and 2-
 trimethylsilylethylcarbonate.

25 6. A monosaccharide building block according to
 claim 1 or claim 2, which is a compound of General Formula
 V

- 45 -



in which

A, X and X_1 are as defined for General Formula I
5 and II, and

B_3 , C_3 , D_3 and E_3 are an orthogonal set of
protecting groups selected from amongst the members of set
1 and from the remaining orthogonal sets.

10 7. A method of synthesis of a molecule selected from
the group consisting of glycoconjugates of non-carbohydrate
molecules, neo-glycoconjugates and oligosaccharides,
comprising the step of using a monosaccharide building
block according to any one of claims 1 to 6.

15 8. A method according to claim 7, in which the
molecule comprises one or more compounds in which
substituents are linked to a pyranose or furanose ring.

20 9. A method according to claim 7 or claim 8, in
which the molecule comprises a sugar analogue.

10. A method according to any one of claims 7 to 9,
in which the synthesis is carried out in solution.

25 11. A method according to any one of claims 7 to 9,
in which the synthesis is carried out on a solid-phase
support.

Handwritten signature and initials:
a
a1